

RIVERS AND FLOODS

[River and Flood Division, MERRILL BERNARD in charge]

NOTE.—The report for August will be published in a later issue of the REVIEW.—*Editor.*

WEATHER ON THE ATLANTIC AND PACIFIC OCEANS

[The Marine Division, I. R. TANNEHILL in Charge]

NORTH ATLANTIC OCEAN, AUGUST 1939

By H. C. HUNTER

Atmospheric pressure.—The average conditions over the northern regions showed a marked contrast with those of July, the pressure being low during August over most northwestern and north-central areas, and high near the British Isles. Over the southeastern North Atlantic the pressure averaged slightly above normal, but over the southwestern, somewhat below normal. Near the Maritime Provinces and western Newfoundland the average pressure was a little higher than normal.

The extremes of pressure found in vessel reports at hand were 1035.6 and 982.4 millibars (30.58 and 29.01 inches, respectively.) The higher reading was noted on the Dutch motorship *Barendrecht* near 43° N., 25° W., during the forenoon of the 3d. The lower reading was recorded on the American liner *President Roosevelt*, about 6 p. m. of the 30th, near 50° N., 30° W. The lowest barometer readings noted in connection with the tropical disturbance were not nearly so low as this.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, August 1939

Station	Average pressure	Departure	Highest	Date	Lowest	Date
	Millibars	Millibars	Millibars		Millibars	
Julianehaab, Greenland.....	1,005.0	-4.8	1,018	26	992	14
Reykjavik, Iceland.....	1,006.7	-2.8	1,031	26	994	14
Lerwick, Shetland Islands.....	1,015.8	+6.7	1,026	28	994	10
Valencia, Ireland.....	1,017.1	+3.9	1,028	15, 16	1,003	31
Lisbon, Portugal.....	1,017.8	+1.2	1,021	11	1,011	4
Madeira ¹	1,018.3	+1.4	1,025	22	1,011	12
Horta, Azores.....	1,023.1	+0.4	1,030	2	1,010	26
Belle Isle, Newfoundland.....	1,012.7	+0.5	1,027	25	992	2
Halifax, Nova Scotia.....	1,016.9	+0.6	1,027	12	1,003	1
Nantucket.....	1,015.6	0.0	1,027	12	1,007	30
Hatteras.....	1,015.2	-0.7	1,024	12	1,007	28
Bermuda.....	1,017.8	-2.9	1,023	12	1,011	17
Turks Island.....	1,015.5	-1.8	1,019	1	1,009	9
Key West.....	1,015.3	+0.1	1,021	1	1,012	11
New Orleans.....	1,014.7	-0.5	1,021	1	1,007	17

¹ For 25 days at Lisbon, 21 days at Madeira.

NOTE.—All data based on a. m. observations only, with departures compiled from best available normals related to time of observation, except Hatteras, Key West, Nantucket and New Orleans, which are 24-hour corrected means.

Cyclones and gales of the main North Atlantic.—The North Atlantic to northward of the 30th parallel was hardly affected by any cyclonic activity before the middle of August. However, on the 18th a low which had been perceptible, but not energetic, for several days near Bermuda, gained considerably in strength as it moved toward the north-northeast, and was noted by the American liner *Steel Scientist*, which encountered a whole gale from the northeast. The storm center was near 40° N., 59° W., at sunset on the 18th, and continued its course to pass close to southeastern Newfoundland late the following day, though by this time it was less vigorous. It seems not to have gained strength again as it moved farther beyond the chief trans-Atlantic steamship lanes.

About 10 days later there was an even more marked

development. Pressure had been somewhat lower than the regional average for a few days in an area to northward of the western Azores, and on the 29th the LOW was well formed and advancing northeastward, the location of the center during the evening of that day being about 50° N., 34° W. During the following morning the American steamship *Black Gull*, west-bound, met wind of force 11, the month's lone instance of greater force than 10 that has yet been reported from the North Atlantic.

The storm continued toward the northeast, but had lost strength to some extent before the month closed, when the center was well to westward of Ireland.

Tropical disturbance.—A tropical storm of moderate importance is described elsewhere in this issue of the Review. On the 8th it was located not far from Puerto Rico, whence it moved toward the west-northwest, crossing the Florida Peninsula and the extreme northeastern Gulf of Mexico and then turning northward into Alabama. Damage was but moderate, and over the waters affected the winds connected with the storm seem to have caused but one death, which occurred near shore by the upsetting of a small boat.

Chart XIII shows the path of this storm's center, and indicates the situation on the morning of the 12th.

Fog.—There was a marked decrease in frequency of fog over nearly all North Atlantic areas where it had been met in July. The chief exception was the portion just to eastward of New England.

Near the American coast southward about as far as Delaware Bay and especially just to southward of Long Island, some fog was reported, mainly about the 21st. In decided contrast, the 5° square lying to eastward and northeastward of Cape Cod, 40° to 45° N., 65° to 70° W., had much fog, the list showing 20 days, a considerably larger number than for any other North Atlantic area. There was but little fog in this vicinity before the 5th or after the 26th. The foginess in this square was considerably more than the average indicated by other Augusts.

In the square next to eastward and southeastward of Sable Island fog was noted on only 2 days, a decidedly small number for this vicinity in late summer.

Near the southern tip of the Grand Banks the square 40° to 45° N., 45° to 50° W. furnished reports of fog on 14 days, again a somewhat greater number than is usual in August. There was but little fog there after the 19th. To eastward of the 45th meridian reports indicate no square with fog on more than 4 days, also no fog anywhere to southward of the 45th parallel except a very little close to the coasts of the Iberian peninsula and northwestern Africa.

Icebergs.—Over part of the Grand Banks of Newfoundland icebergs were noted during August, even a few after the middle of the month; whereas in most years none is seen near the chief steamship lanes after the middle of July. The British freight steamship *Beaverhill*, Quebec to London, hit an iceberg early on the 7th, but was not damaged enough to interfere seriously with the voyage.